



**Australian Government**

**Department of Industry,  
Science and Resources**

**National  
Measurement  
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Certificate of Approval**

**NMI 6/4C/338**

Issued by the Chief Metrologist under Regulation 60  
of the  
*National Measurement Regulations 1999*

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

METTLER TOLEDO Model MR304 Weighing Instrument

submitted by Mettler-Toledo Limited  
Level 1, 191 Salmon Street  
Port Melbourne VIC 3207

**NOTE:** This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated October 2015.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

**DOCUMENT HISTORY**

| <b>Rev</b> | <b>Reason/Details</b>                                   | <b>Date</b> |
|------------|---|-------------|
| 0          | Pattern & variants 1 to 2 approved – certificate issued | 13/02/25    |
|            |   |             |

## CONDITIONS OF APPROVAL

### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/4C/338' and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate of Approval No S1/0B.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.



**Darryl Hines**  
Manager  
Policy and Regulatory Services

TECHNICAL SCHEDULE No 6/4C/338

**1. Description of Pattern**

**approved on 13/02/25**

The METTLER TOLEDO model MR304 special accuracy class  $\text{D}$  self-indicating weighing instrument (Figure 1 and Table 1) of 320 g maximum capacity with a verification scale interval of 0.001 g and with a minimum capacity of 0.01 g.

The instrument is an electromagnetic force compensation type and has a metal housing with a colour LCD touchscreen display for display of the weight value.

The instrument has a circular platter. Instruments may have a windshield provided over the platter.

Instruments are approved for use over a temperature range of +10°C to +30°C, and are so marked.

Instruments are not for trading direct with the public, and are so marked, with the exception of instruments used for the weighing of precious metals and precious stones provided that instruments are located such that the instrument and its display are clearly visible to both parties to the transaction.

Instruments may be fitted with output sockets (output interfacing capability) for the connection of auxiliary and/or peripheral devices.

**1.1 Zero**

A zero-tracking device may be fitted.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

**1.2 Tare**

A semi-automatic subtractive tare device of up to the maximum tare capacity of the instrument may be fitted.

**1.3 Differentiated Scale Division**

Instruments have an auxiliary indicating device (a differentiated scale division (digit)) which is shown in a different colour (Figure 3) in the display) with a value as shown in the 'Scale Interval (*d*)' column of Table 1.

Scale intervals other than verification scale interval are not approved for trade use.

The differentiated scale division shall only be used for a weight value to be rounded to the nearest verification scale interval or determination of the zero position.

**1.4 Alternative Units**

Use of units other than kilogram (kg) or gram (g) or milligram (mg) is not approved for trade use.

**1.5 Internal Self-Calibration System**

Instruments are fitted with an internal 'self-calibration' system. This comprises an internal adjustment mass that may be applied to the instrument (in an automatic adjustment cycle), or manually by pressing a key, or as part of the switch-on sequence, or according to predetermined criteria (time period and/ or temperature

variation). The display of the instrument provides an indication when this adjustment cycle is about to start.

### 1.6 Display Check

A display check is initiated when the instruments are switched on.

### 1.7 Levelling

The instrument is provided with an electronic levelling indicator and adjustable feet. A warning sign appears on the display if the permissible tilt of the instrument is exceeded.

### 1.8 Power Supply

Power may be supplied by the 100 – 240 V AC 50/60 Hz AC/DC mains adaptor with 12 V DC output.

Note: The AC/DC mains adaptor supplied for the instrument was a DONGGUAN SHILONG FUHUA ELECTRONIC CO., LTD. Switching Power Supply model UES12LCP-120100SPA AC/DC mains adaptor (12 V DC, 1 A); the submitter should be consulted regarding the acceptability of alternative power supply units.

### 1.9 Interfaces

Instruments may be fitted with interfaces for the connection of auxiliary and/or peripheral devices. Any interfaces shall comply with clause 5.3.6 of document NMI R76 (the basic intent of which is that it shall not be possible to alter weighing results via the interfaces).

Any measurement data output from the instrument or its interfaces shall only be used for trade in compliance with Supplementary Certificate No S1/0B (in particular in regard to the data and its format).

Instruments may be fitted with the following interfaces:

- RS-232C;
- LAN;
- USB-A;
- USB-C.

### 1.10 Additional Features

Instruments may be fitted with a number of additional functions including parts counting (pcs), check weighing, dynamic (animal) weighing, formulation, totalling, back weighing and density.

These functions and displays are not approved for trade use.

### 1.11 Verification Provision

Provision is made for the application of a verification mark.

### 1.12 Descriptive Markings and Notices

Instruments carry the following markings:

|  |                       |
|--|-----------------------|
| Manufacturer's mark, or name written in full | METTLER TOLEDO        |
| Indication of accuracy class                 | Ⓛ or Ⓜ                |
| Pattern approval number for the instrument   | NMI 6/4C/338          |
| Maximum capacity                             | Max ..... mg, g, kg # |

|                                 |                              |
|---------------------------------|------------------------------|
| Minimum capacity                | <i>Min</i> ..... mg, g, kg # |
| Verification scale interval     | <i>e</i> = ..... mg, g, kg # |
| Actual scale interval           | <i>d</i> = ..... mg, g, kg # |
| Serial number of the instrument | .....                        |
| Special temperature limits      | +10°C to +30°C               |

# These markings are shown in the electronic markings field above the display of the result.

In addition, instruments shall carry a notice stating NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

### 1.13 Software

The legally relevant software is designated 1.x.x for the reliability, 1.x.x for the digital load cell and 1.x.x for the levelling module, where 'x.x' represents the identification of non-legally relevant software changes.

The legally relevant software versions and numbers can be seen by pressing the balance menu button and then the 'i' information button on the display.

### 1.14 Sealing Provision

Sealing of the internal 'self-calibration' adjustments of special accuracy class ① instruments is not required. However, there is provision for the calibration to be sealed by the use of destructible adhesive labels on the rear of the instrument to prevent access to the calibration switch, and to prevent separation of the casing of the instrument (Figure 2).

Instruments are provided with an integral/internal 'self-calibration' system; Sealing of the instrument does not prevent operation of this system, however the system uses data regarding the value of internal mass, and alteration of that data is prevented.

## 2. Description of Variant 1 approved on 13/02/25

Certain other models/capacities of the METTLER TOLEDO model MR series of special accuracy class ① instruments (Figure 1) are listed in TABLE 1 below (the pattern is shown in **bold**).

TABLE 1

| Model        | Maximum Capacity<br><i>(Max)</i> | Minimum Capacity<br><i>(Min)</i> | Verification Scale Interval<br><i>(e)</i> | Differential Scale Interval<br><i>(d)</i> | Platter                  |
|--------------|----------------------------------|----------------------------------|---|---|--------------------------|
| MR104        | 120 g                            | 0.01 g                           | 0.001 g                                   | 0.0001 g                                  | Circular with windshield |
| MR204        | 220 g                            | 0.01 g                           | 0.001 g                                   | 0.0001 g                                  | Circular with windshield |
| <b>MR304</b> | <b>320 g</b>                     | <b>0.01 g</b>                    | <b>0.001 g</b>                            | <b>0.0001 g</b>                           | Circular with windshield |

## 3. Description of Variant 2 approved on 13/02/25

Certain models/capacities of the METTLER TOLEDO model MR series of high accuracy class ② instruments (Figure 1) as listed in TABLE 2 below.

Instruments may have a wind shield provided over the circular platter.

TABLE 2

| Model  | Maximum Capacity<br>( <i>Max</i> ) | Minimum Capacity<br>( <i>Min</i> ) | Verification Scale Interval<br>( <i>e</i> ) | Differential Scale Interval<br>( <i>d</i> ) | Platter                  |
|--------|------------------------------------|------------------------------------|---|---|--------------------------|
| MR203  | 220 g                              | 0.02 g                             | 0.01 g                                      | 0.001 g                                     | Circular with windshield |
| MR303  | 320 g                              | 0.02 g                             | 0.01 g                                      | 0.001 g                                     | Circular with windshield |
| MR503  | 520 g                              | 0.02 g                             | 0.01 g                                      | 0.001 g                                     | Circular with windshield |
| MR603  | 620 g                              | 0.02 g                             | 0.01 g                                      | 0.001 g                                     | Circular with windshield |
| MR1002 | 1 200 g                            | 0.5 g                              | 0.1 g                                       | 0.01 g                                      | Square                   |
| MR2002 | 2 200 g                            | 0.5 g                              | 0.1 g                                       | 0.01 g                                      | Square                   |
| MR3002 | 3 200 g                            | 0.5 g                              | 0.1 g                                       | 0.01 g                                      | Square                   |
| MR4002 | 4 200 g                            | 0.5 g                              | 0.1 g                                       | 0.01 g                                      | Square                   |
| MR6002 | 6 200 g                            | 0.5 g                              | 0.1 g                                       | 0.01 g                                      | Square                   |
| MR6001 | 6 200 g                            | 5 g                                | 1 g   | 0.1 g                                       | Square                   |

## TEST PROCEDURE No 6/4C/338

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

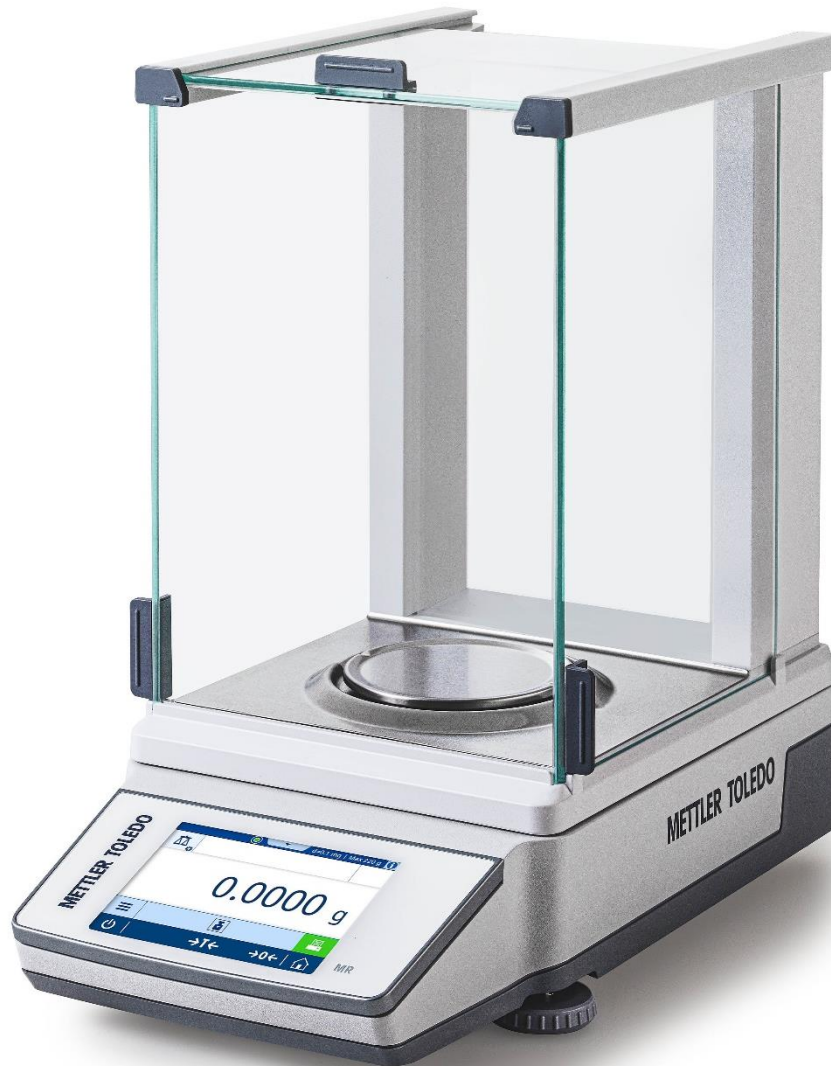
The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

### **Maximum Permissible Errors**

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE 6/4C/338 – 1



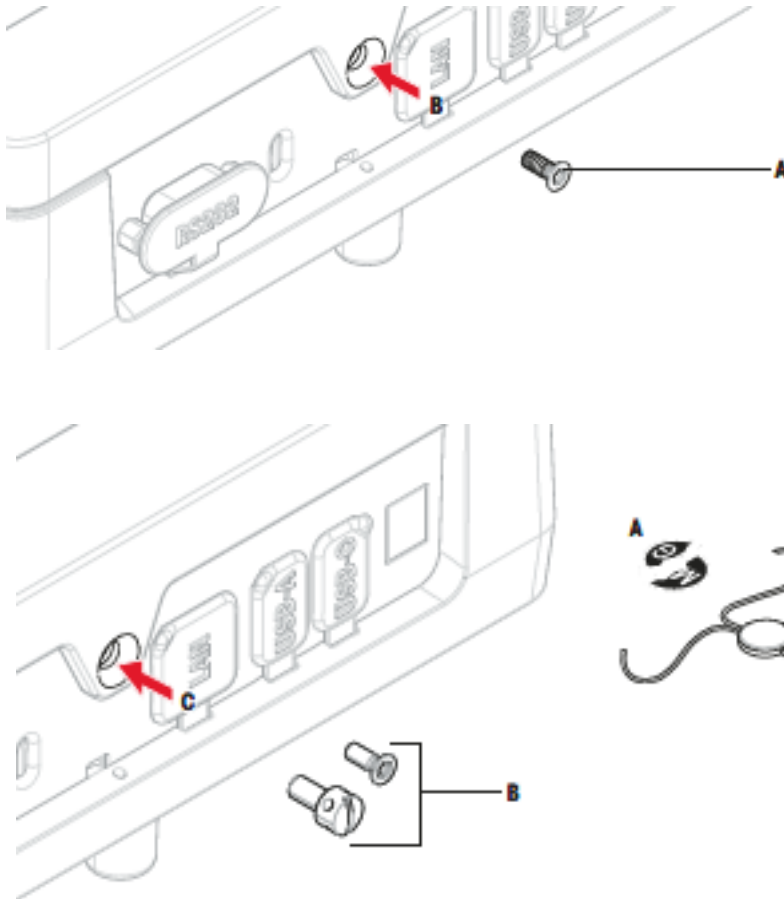
Typical METTLER TOLEDO Model MR Weighing Instruments



FIGURE 6/4C/338 – 2



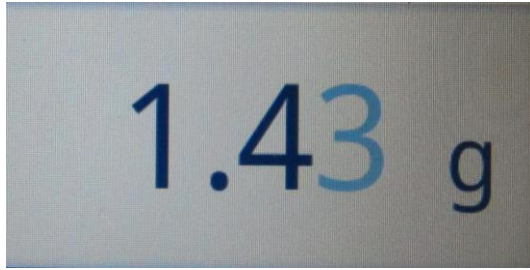
(a) Sealing Arrangement Using Destructible Adhesive Label



(b) Sealing Arrangement Using Lead and Wire Type

Typical Sealing

FIGURE 6/4C/338 – 3



Differentiated Scale Division

~ End of Document ~